

FIGURE 1

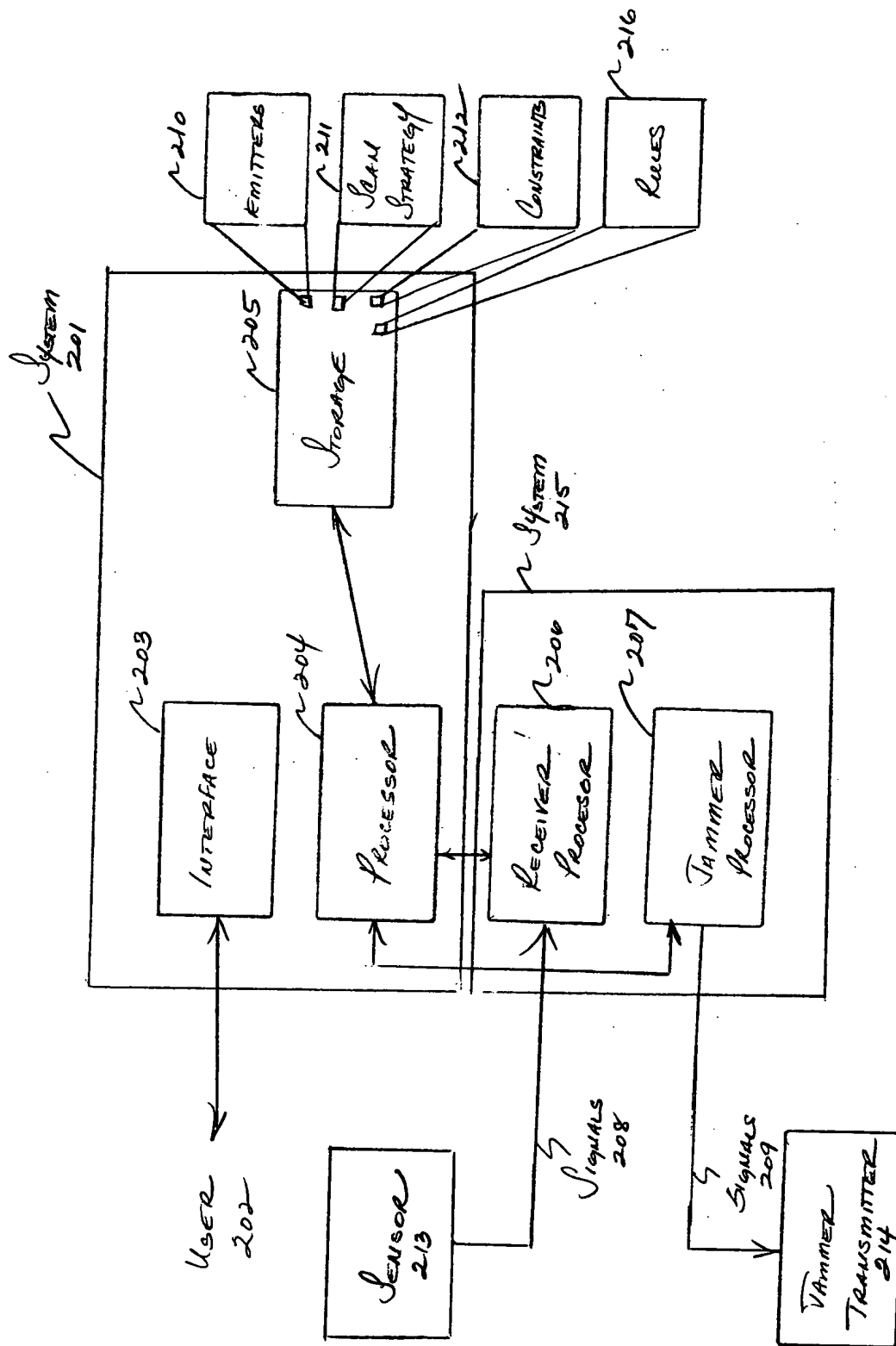
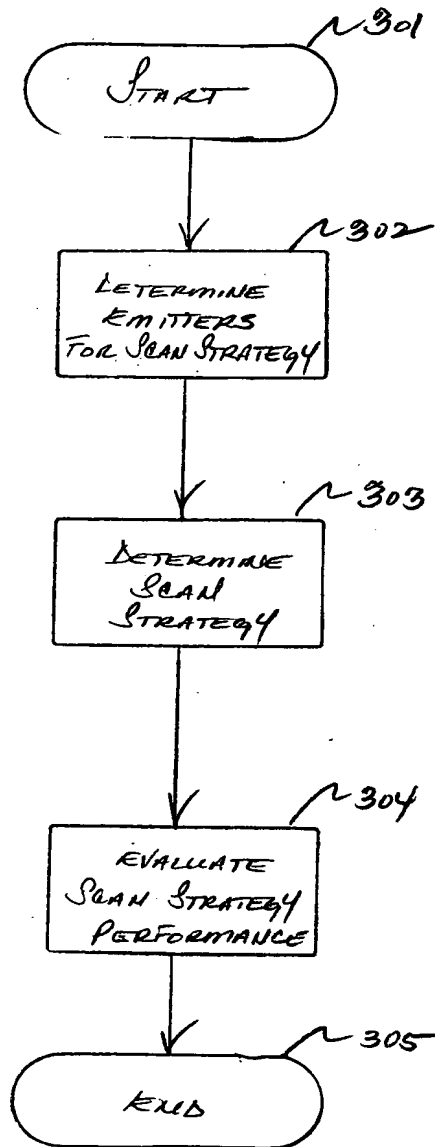


Figure 2



PROCESS
300

FIGURE 3

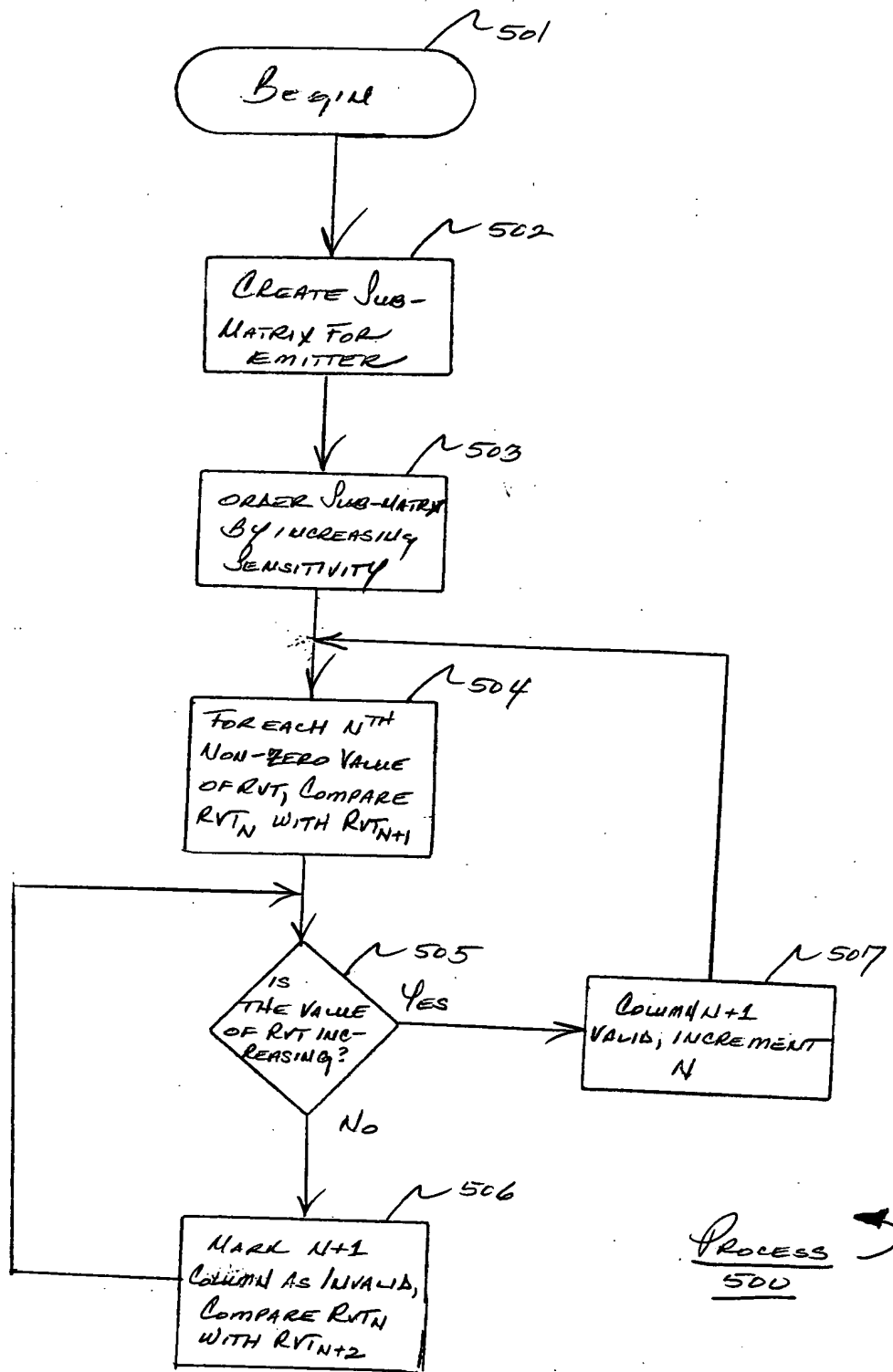


FIGURE 5

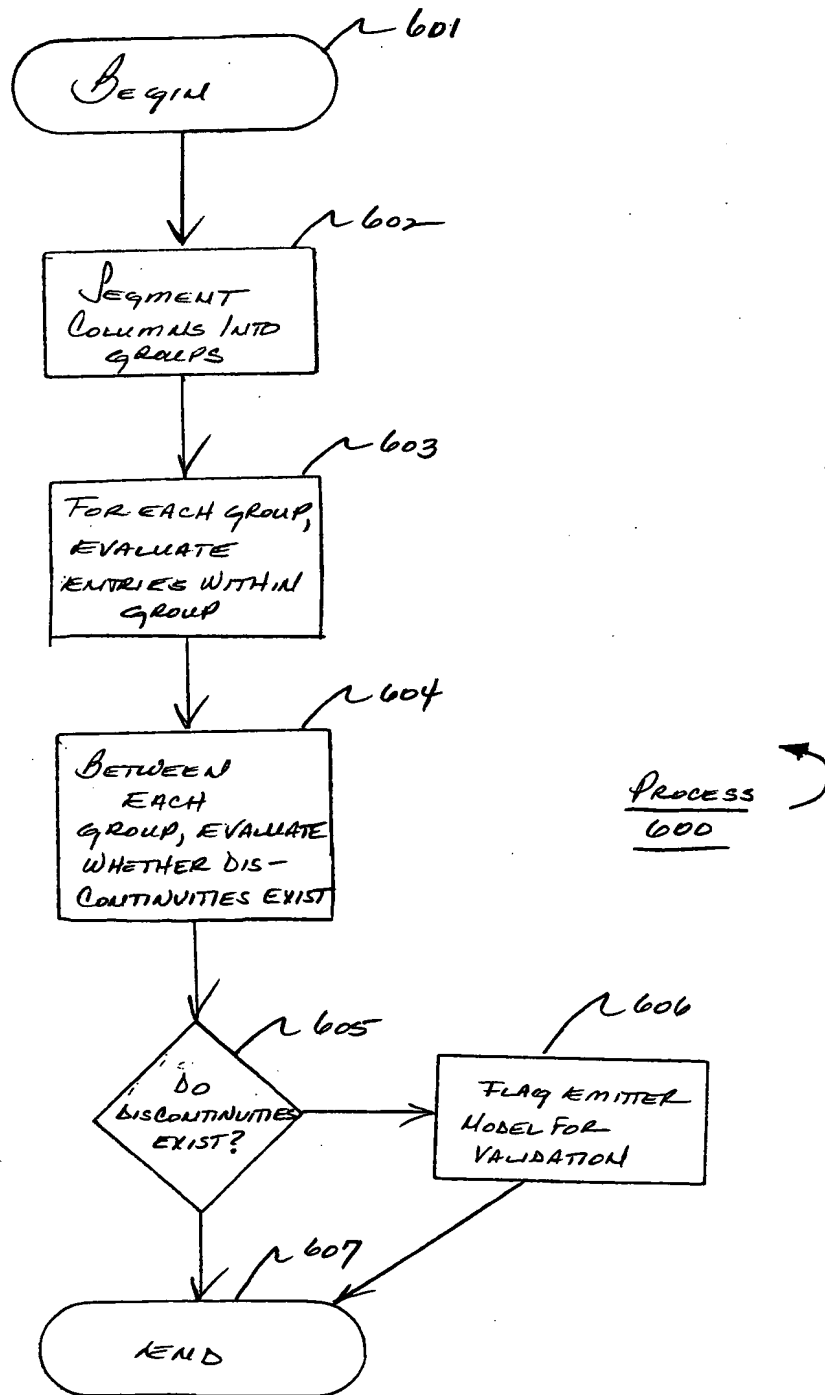


FIGURE 6

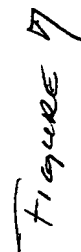


Figure 7

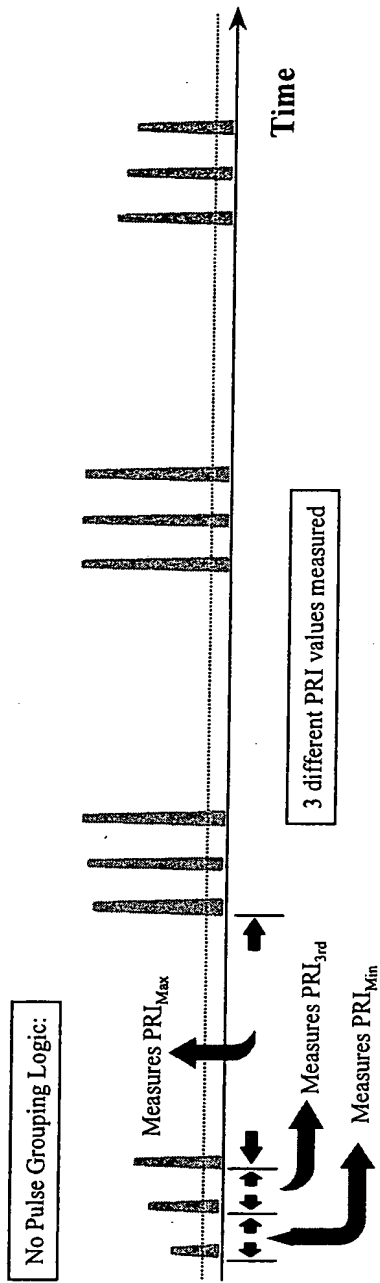


Figure 8A

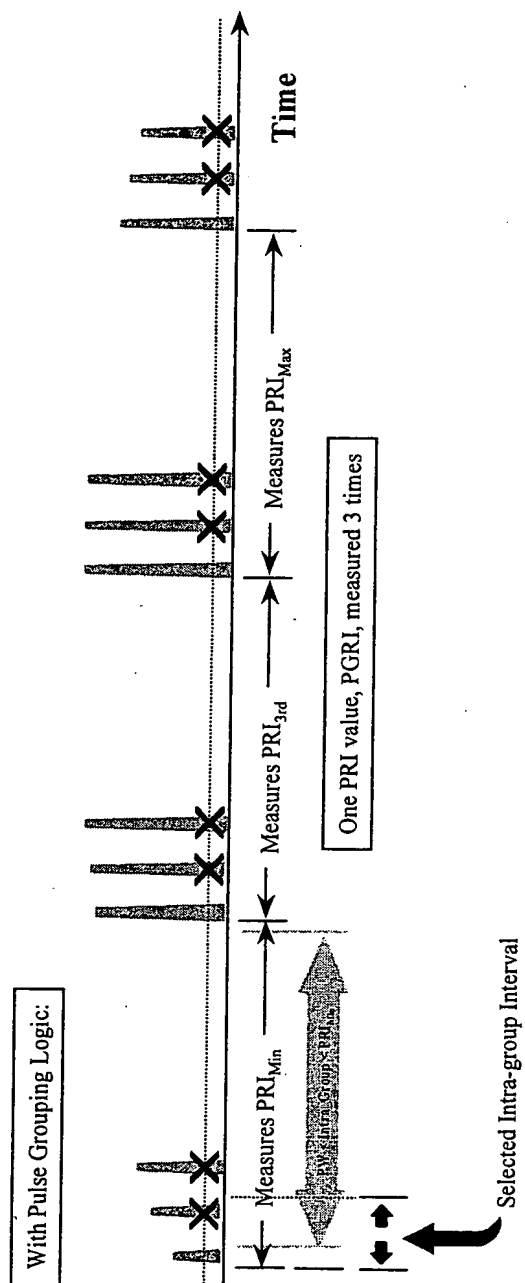


Figure 8B

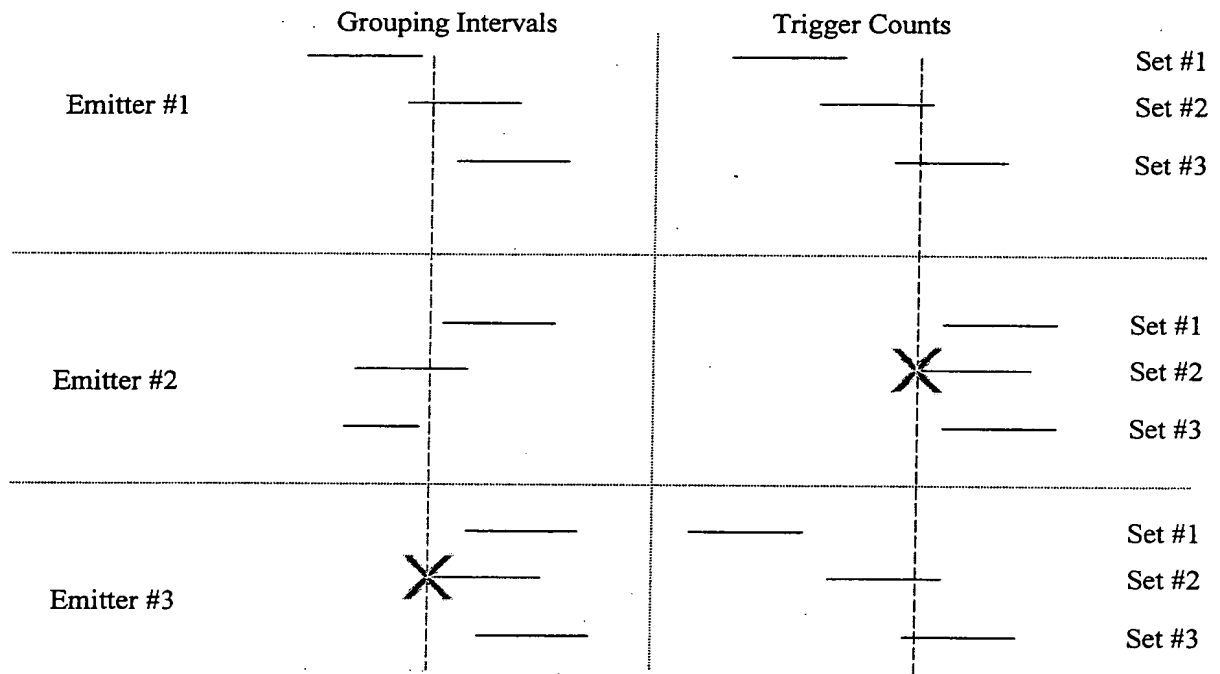


Figure 9

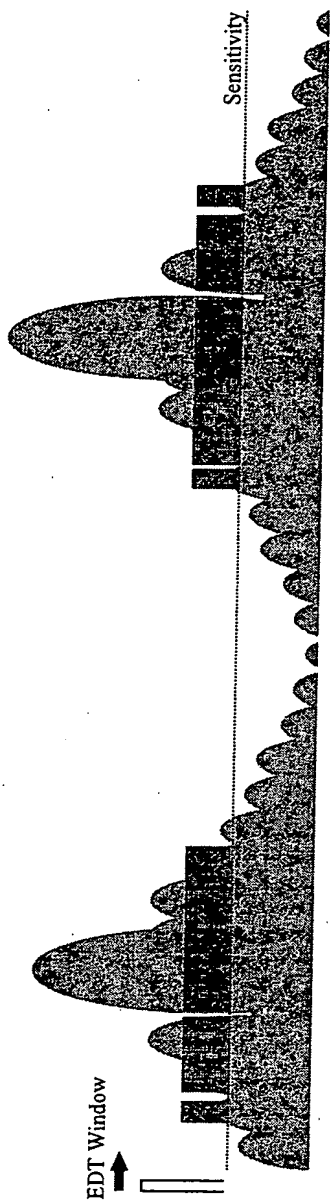


Figure 10A

Discrete Illuminations (TIBS)

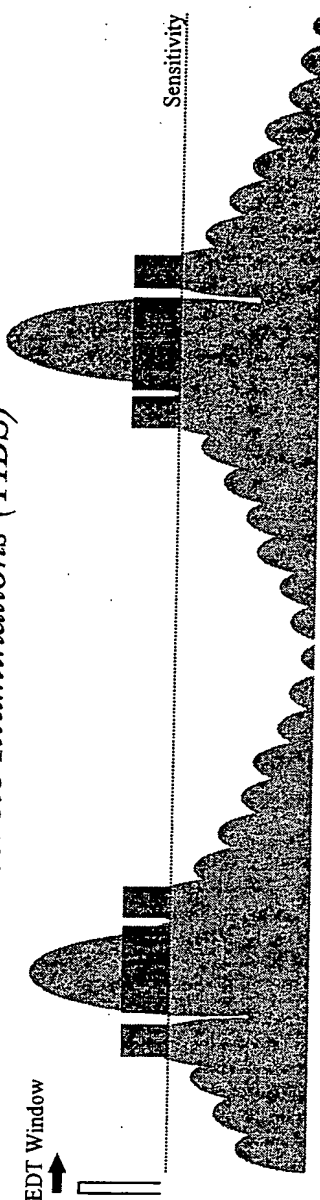
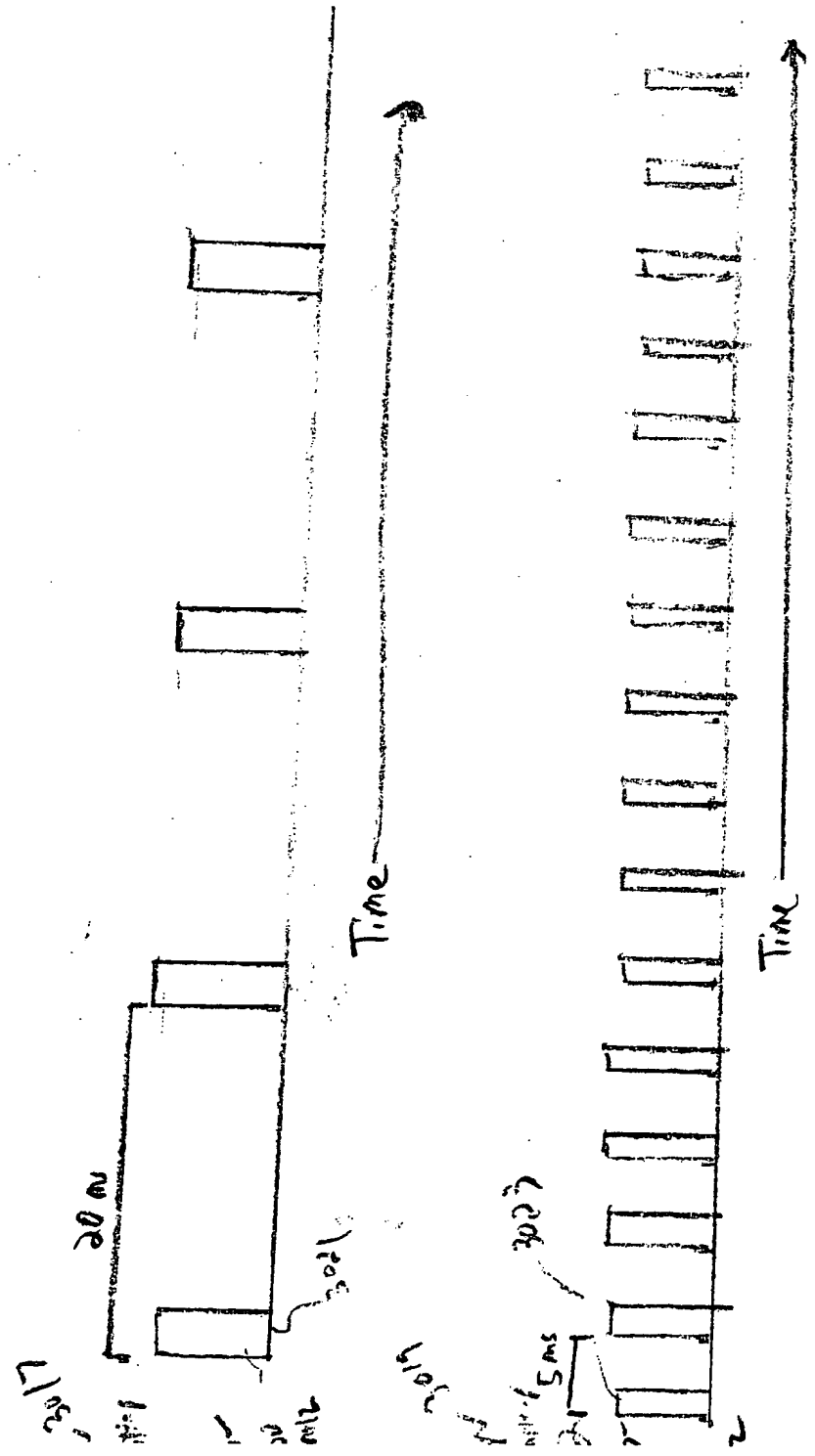
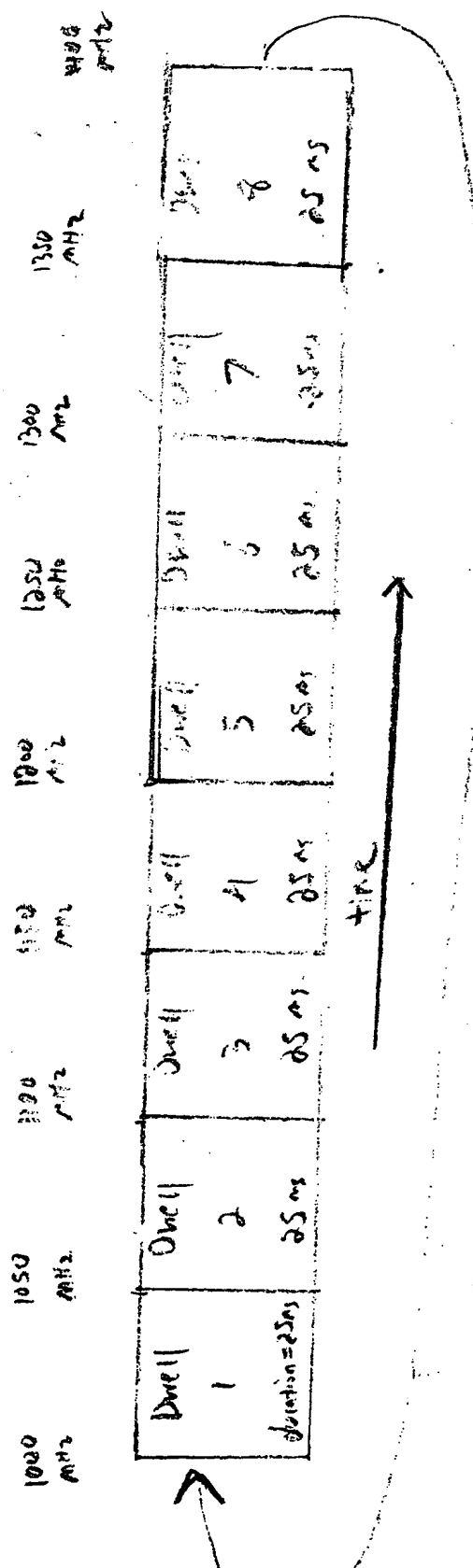
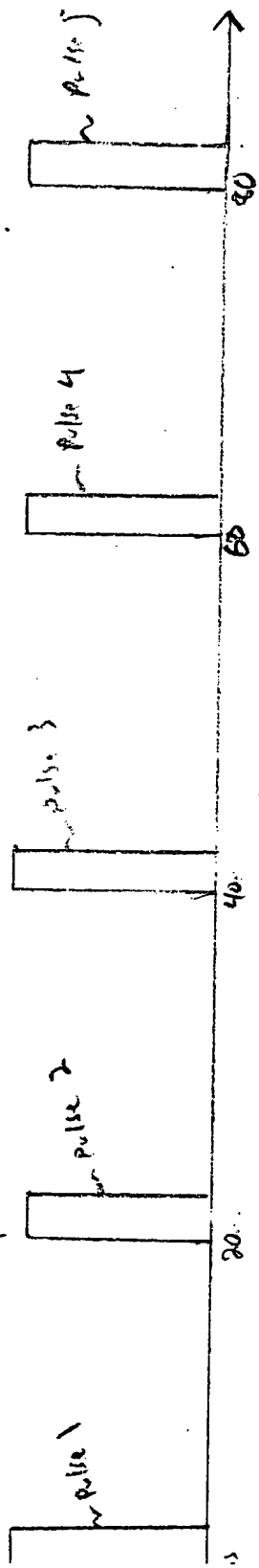


Figure 10B

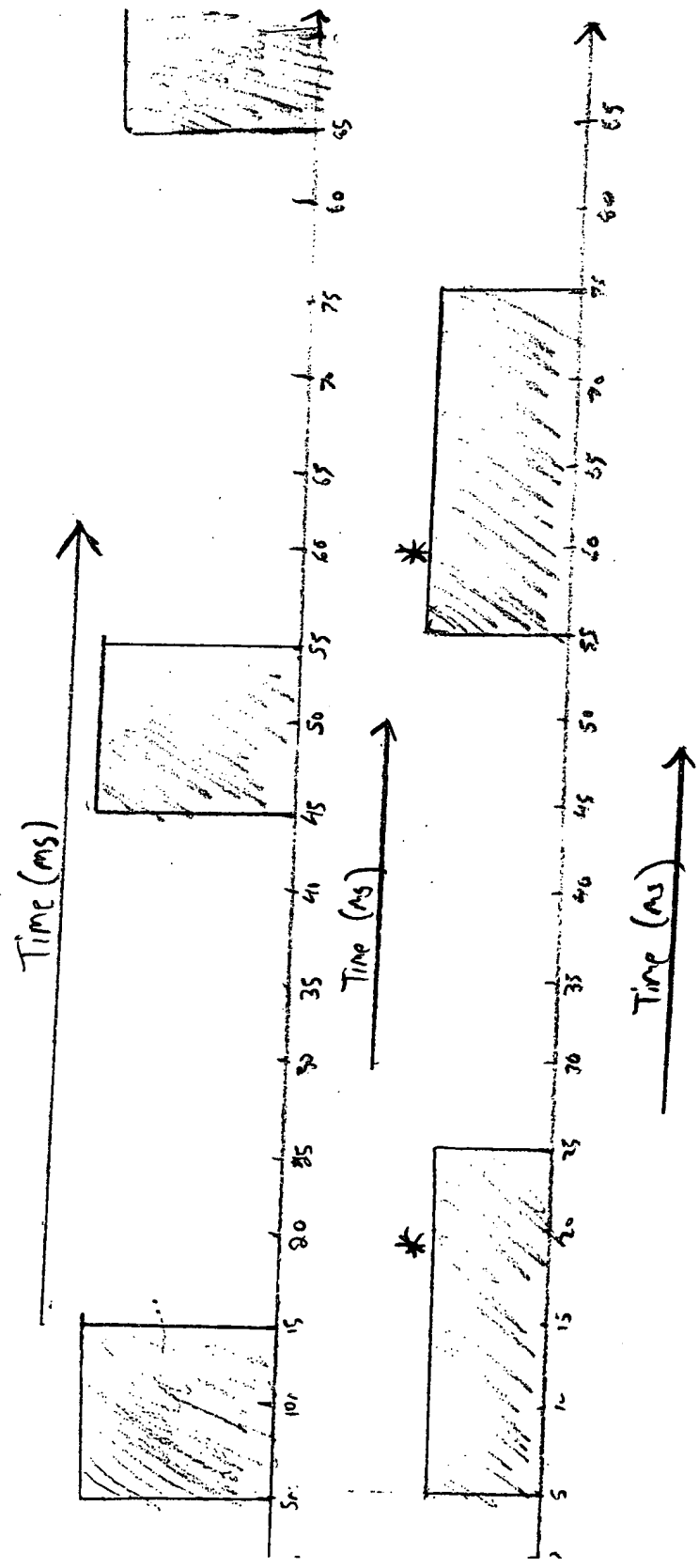
Figure 11



PRI = 20V



Emitter 3101



Solution 1
Drill Duration = 10 ms
Revol Time = 40 ms

Solution 2
Drill Duration = 20 ms
Revol Time = 50 ms

Figure 12

4000

Emitter Name	Operating MHz 250 MHz IF 15 MHz VSW	Operating MHz 30 MHz ZF 15 MHz VSW	RF Min (MHz)	RF Max (MHz)	Mod MDT (ms)
E1	RV T 100 ns	RV T 650 ns	1000	1300	3
E2	RV T 100 ns	RV T 780 ns	1220	1350	5
E3	RV T 110 ns	RV T 330 ns	1510	1910	2
E4	RV T 130 ns	RV T 390 ns	1730	1860	4

Figure B

1000 1250

Dwell 1
 DD_{max} = 5
 RVT_{IN} = 100

Cost = $\frac{5}{100} = .05$

Solution 1

	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500
Dwell 1	Dwell 2	Dwell 3	Dwell 4	Dwell 5	Dwell 6	Dwell 7	Dwell 8	Dwell 9			
DD _{max}	3	3	3	3	3	3	5	5			
RVT _{IN}	650	650	650	650	650	650	650	650			
Cost	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{5}{650}$	$\frac{5}{650}$			
Cost	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{3}{650}$	$\frac{5}{650}$	$\frac{5}{650}$			

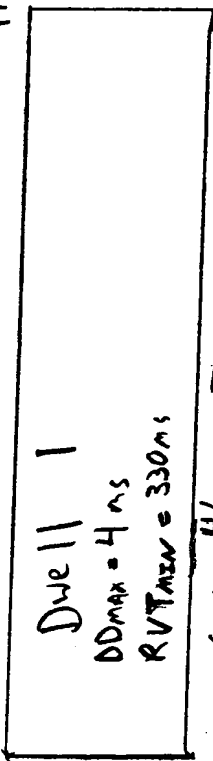
Solution 2

Total
 $\frac{31}{650} \approx .048$

Figure 14A

1510

1760



Dwell 1

DDmax = 4 ms

RVTime = 330 ms

$$\text{Cost} = \frac{4}{330} = .012$$

Solution 1

1510 1540 1570 1600 1630 1660 1690 1720 1750 1780

Dwell 1	Dwell 2	Dwell 3	Dwell 4	Dwell 5	Dwell 6	Dwell 7	Dwell 8	Dwell 9
DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 2	DDmax 4
RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms	RVTime 330ms

$$\text{Cost} = \frac{2}{330} + \frac{\text{cost}}{330} + \frac{2}{330} + \frac{\text{cost}}{330} + \frac{2}{330} + \frac{\text{cost}}{330} + \frac{2}{330} + \frac{\text{cost}}{330} + \frac{4}{330} = .08$$

Solution 2

Figure 14B

Figure 15

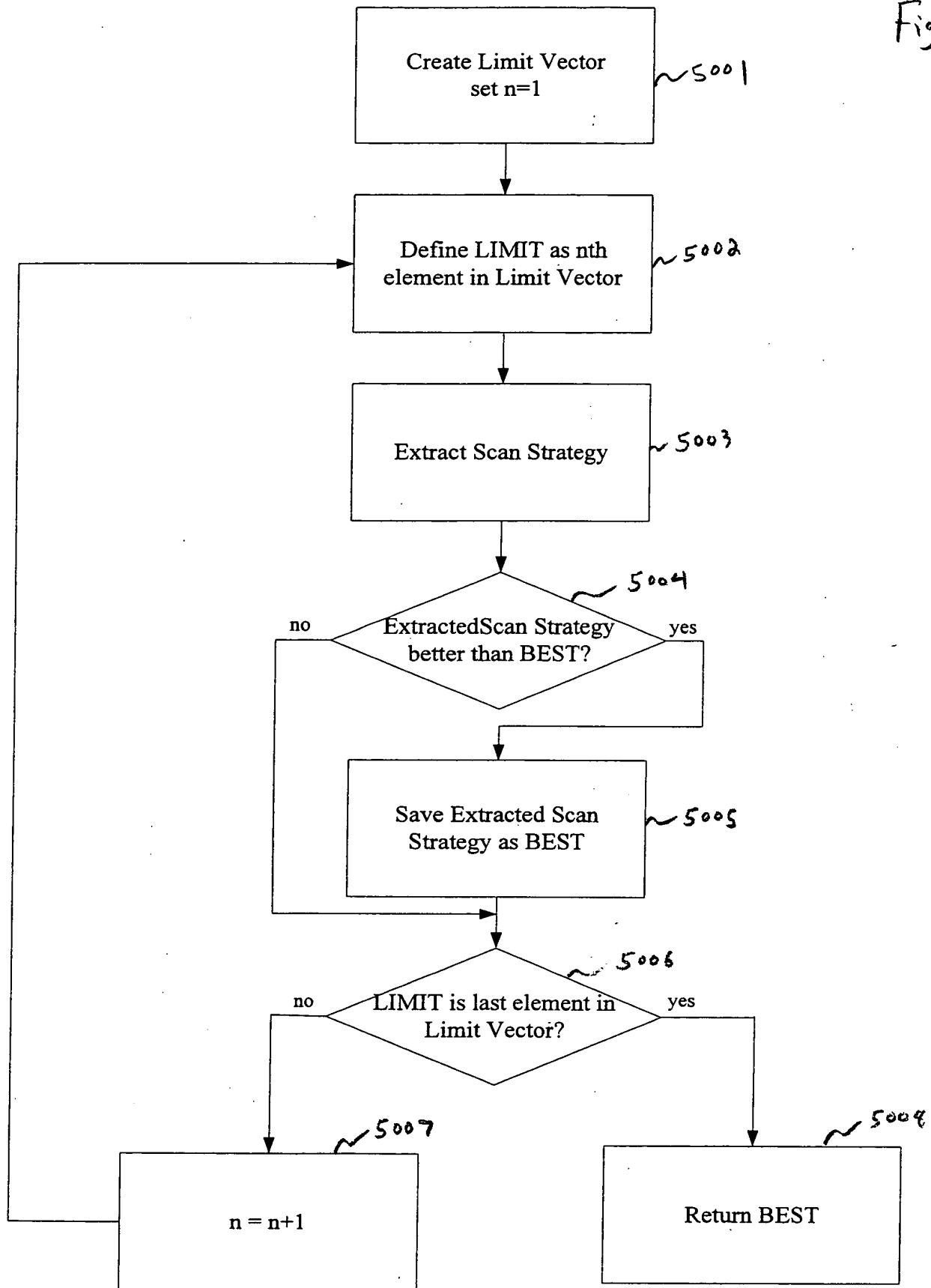
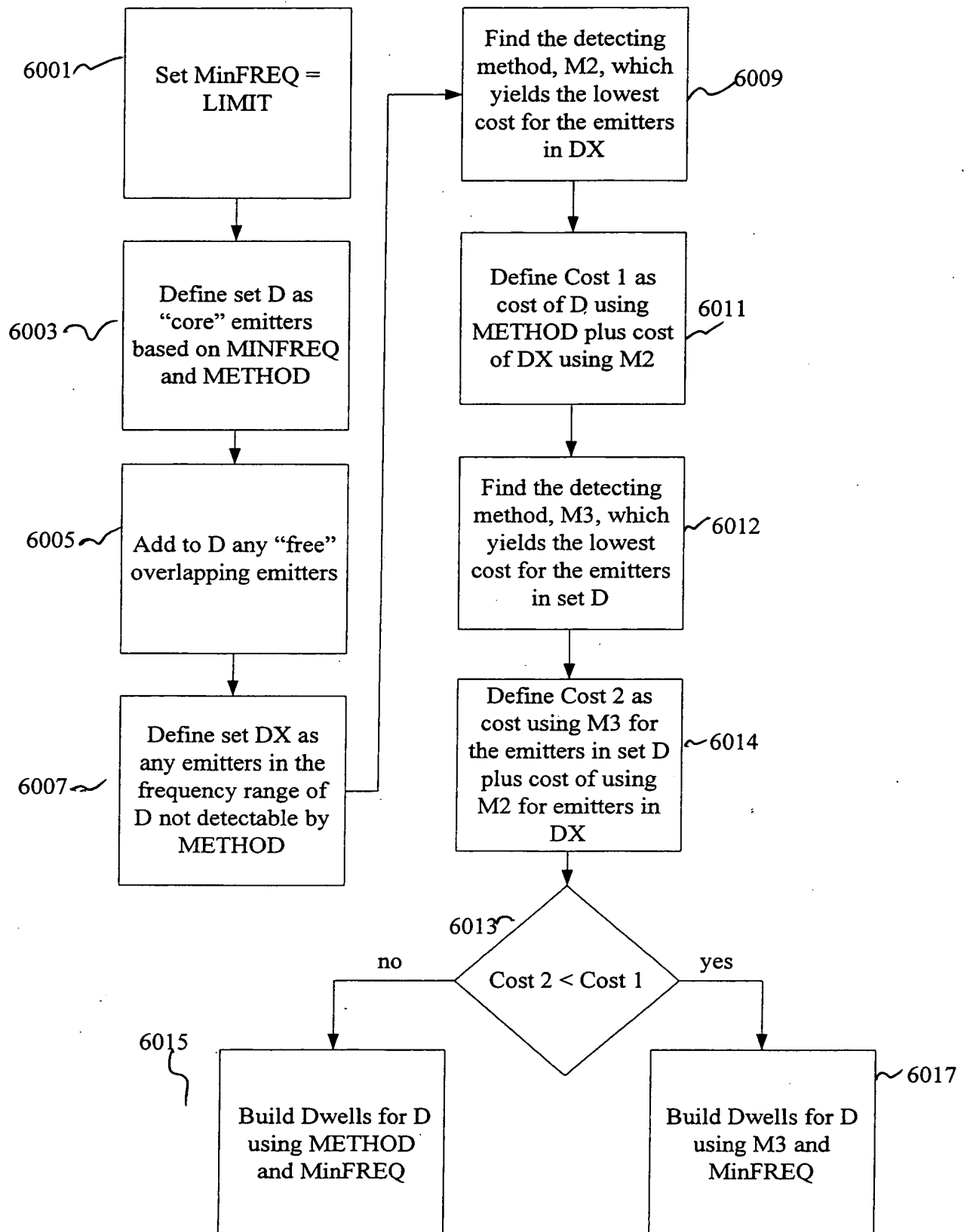


Figure 16



Name	RF Min	RF Max
E1	1100	1200
E2	1150	1250

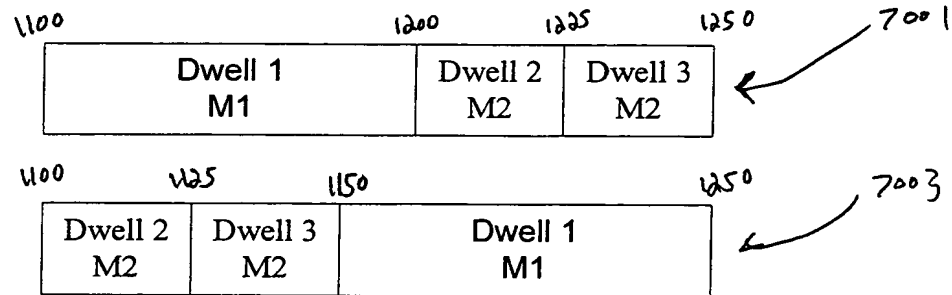
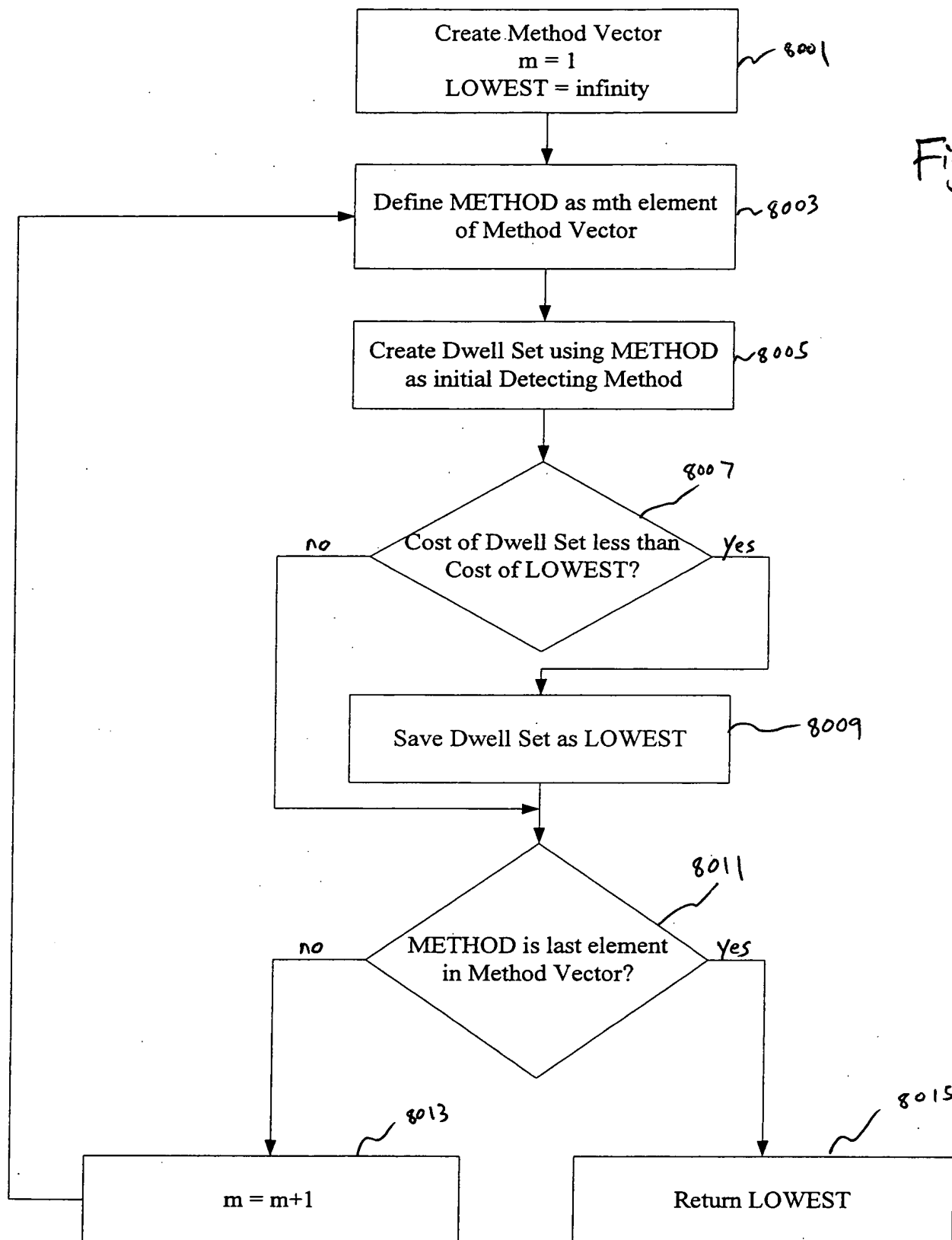


Figure 17

Figure 18



Emitter	Dwell Duration (ms)	Revisit Time (ms)
Emitter 1	1	500
Emitter 2	2	1200

Figure 19

Emitter	Dwell Duration (ms)	Revisit Time (ms)	Cost
Emitter 1	1	500	.002
Emitter 2	5	1000	.005

Figure 20

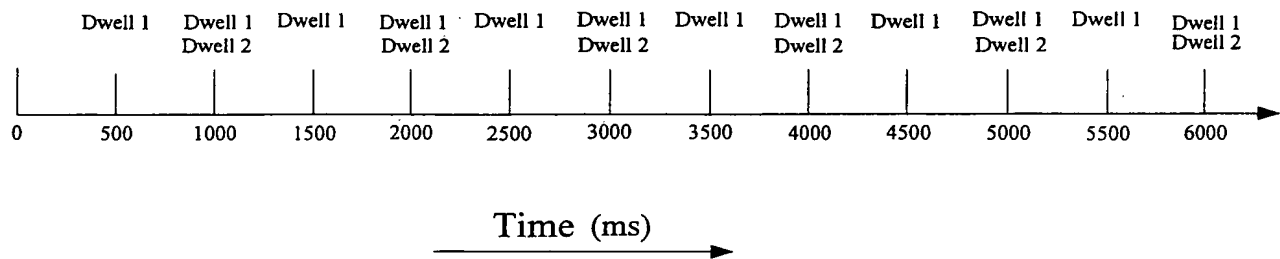


Figure 21

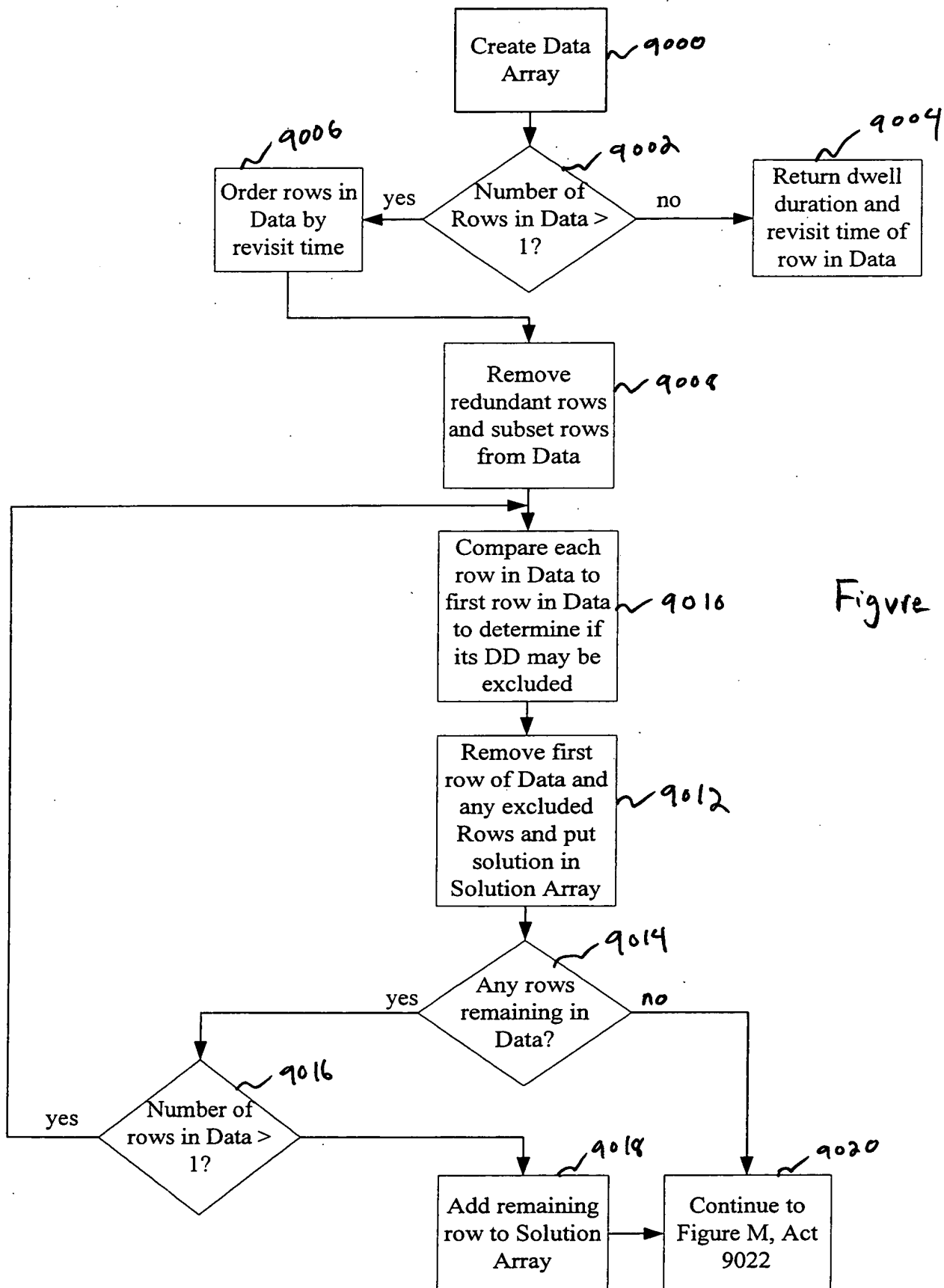


Figure 22

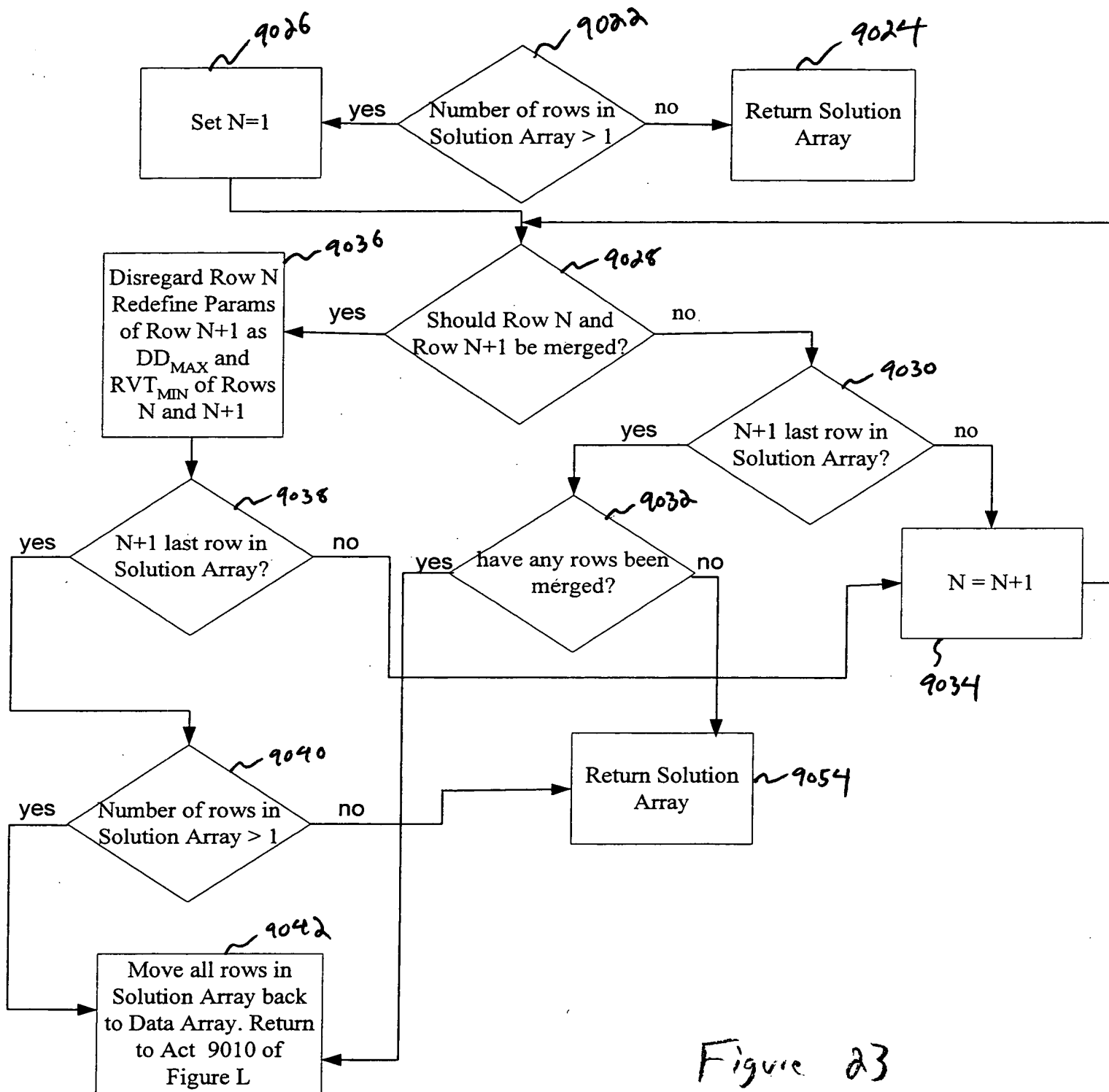


Figure 23

9044

Data		
MDT	EDT	RVT
3.05	17	2868
3	19	2000
3	19	2000
1	7	500
2	9	700
2.3	11	800
0.5	3.5	1000

Figure 24A

9044

Data		
MDT	EDT	RVT
1	7	500
2	9	700
2.3	11	800
0.5	3.5	1000
3	19	2000
3	19	2000
3.05	17	2868

9048
9049
9050

Figure 24B

9051
9052

Data		
MDT	EDT	RVT
1	7	500
2	9	700
2.3	11	800
3	19	2000
3.05	17	2868

Figure 24C

9044

Data		
MDT	EDT	RVT
2	9	700
2.3	11	800

9046

Solution		
MDT	EDT	RVT
1	19	500

Figure 24D

9044

Data		
MDT	EDT	RVT

9046

Solution		
MDT	EDT	RVT
1	19	500
2	11	700

Figure 24E

9046

Solution		
MDT	EDT	RVT
1	19	500
2	11	700

Figure 24F

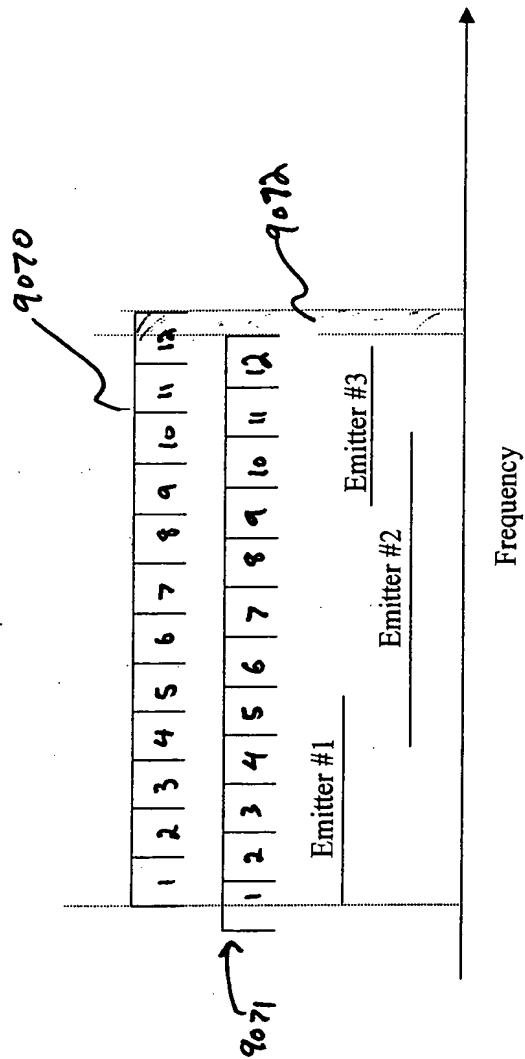


Figure 25

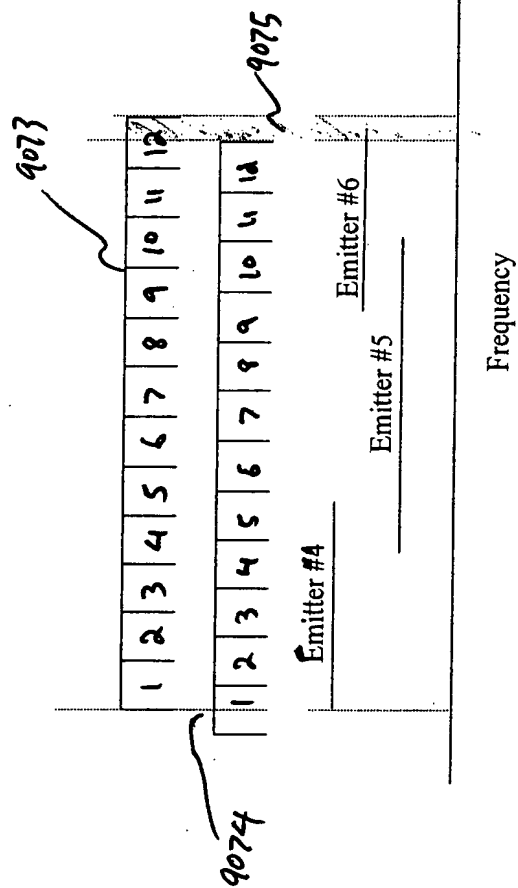


Figure 26

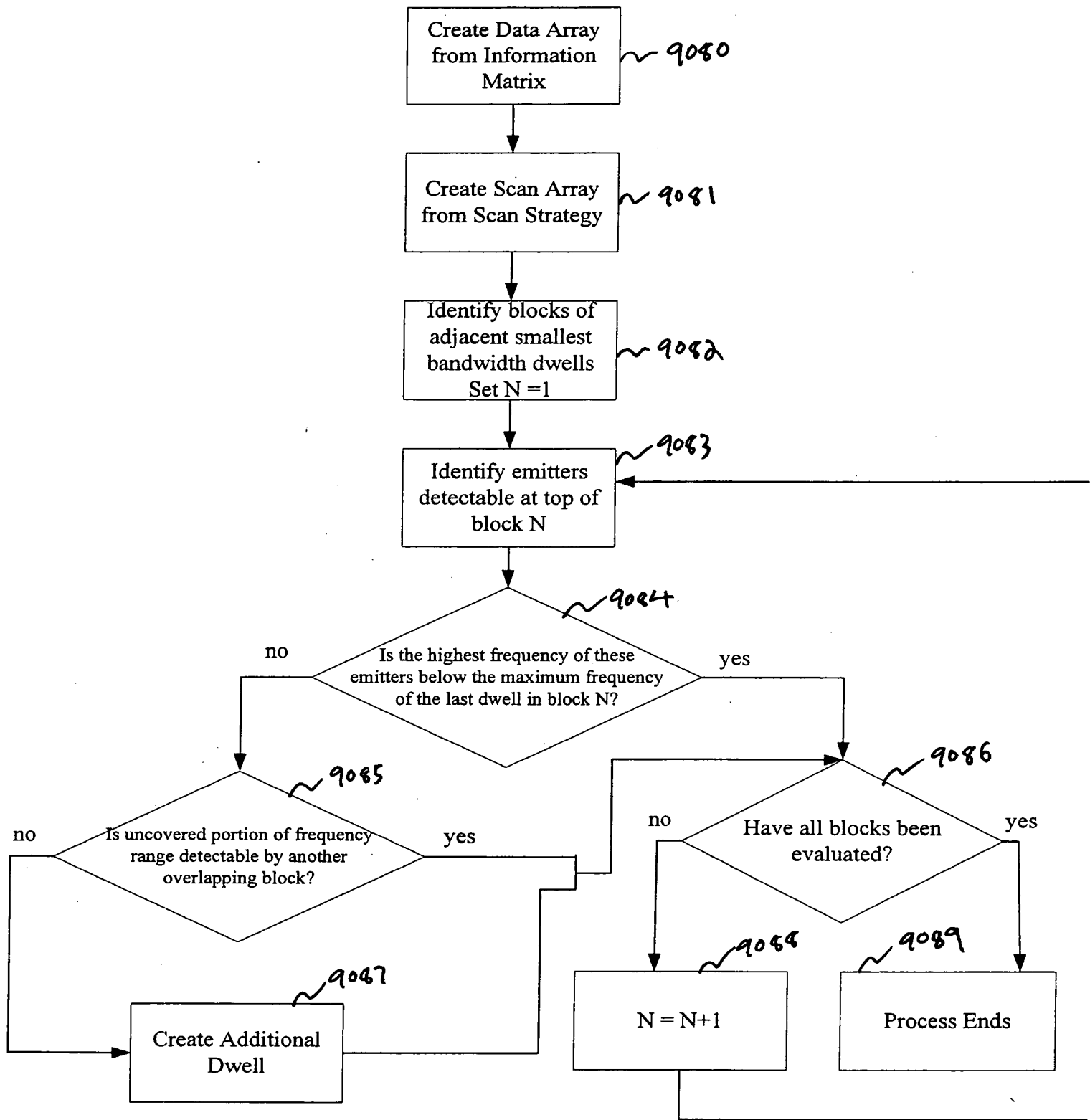


Figure 27

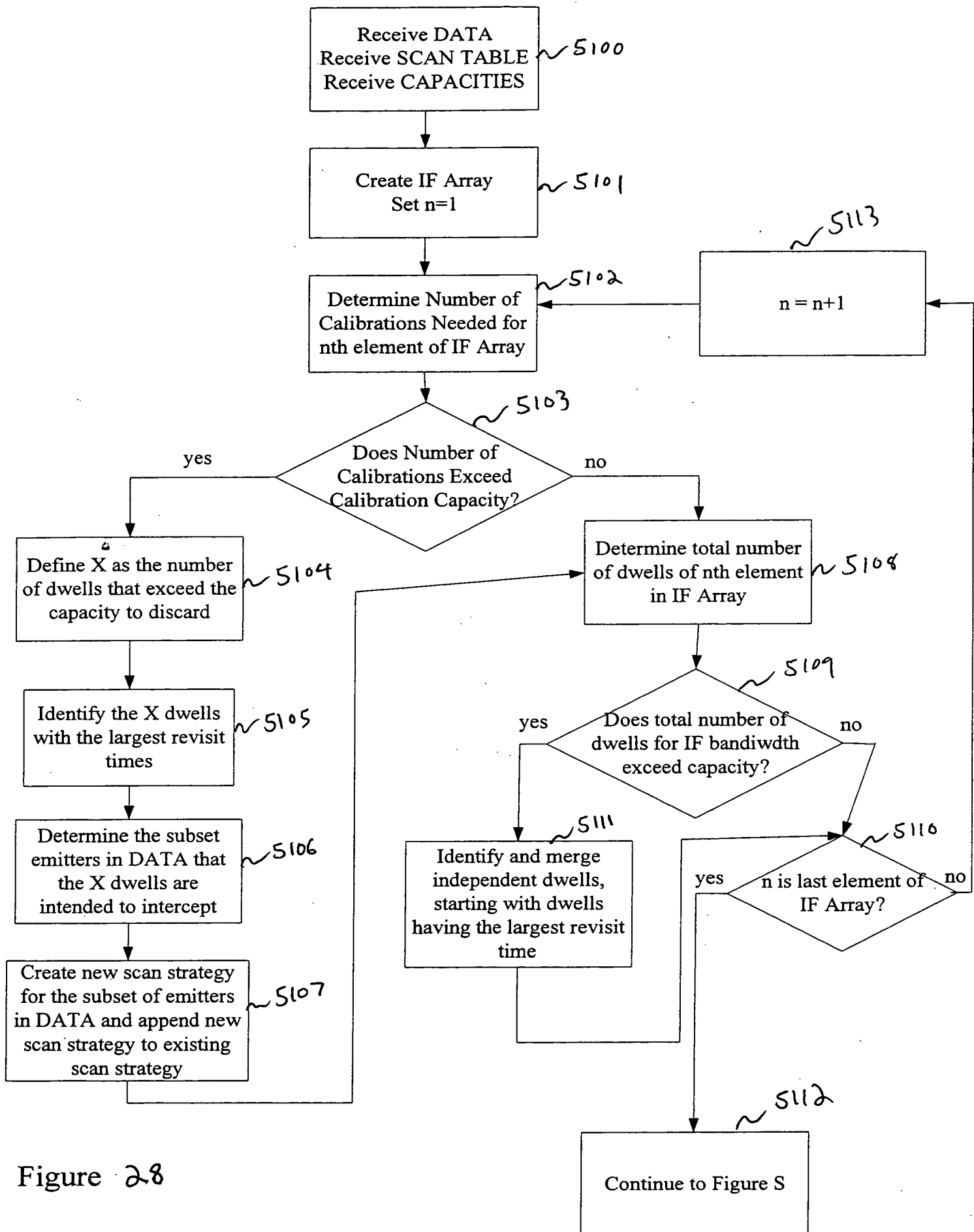


Figure 28

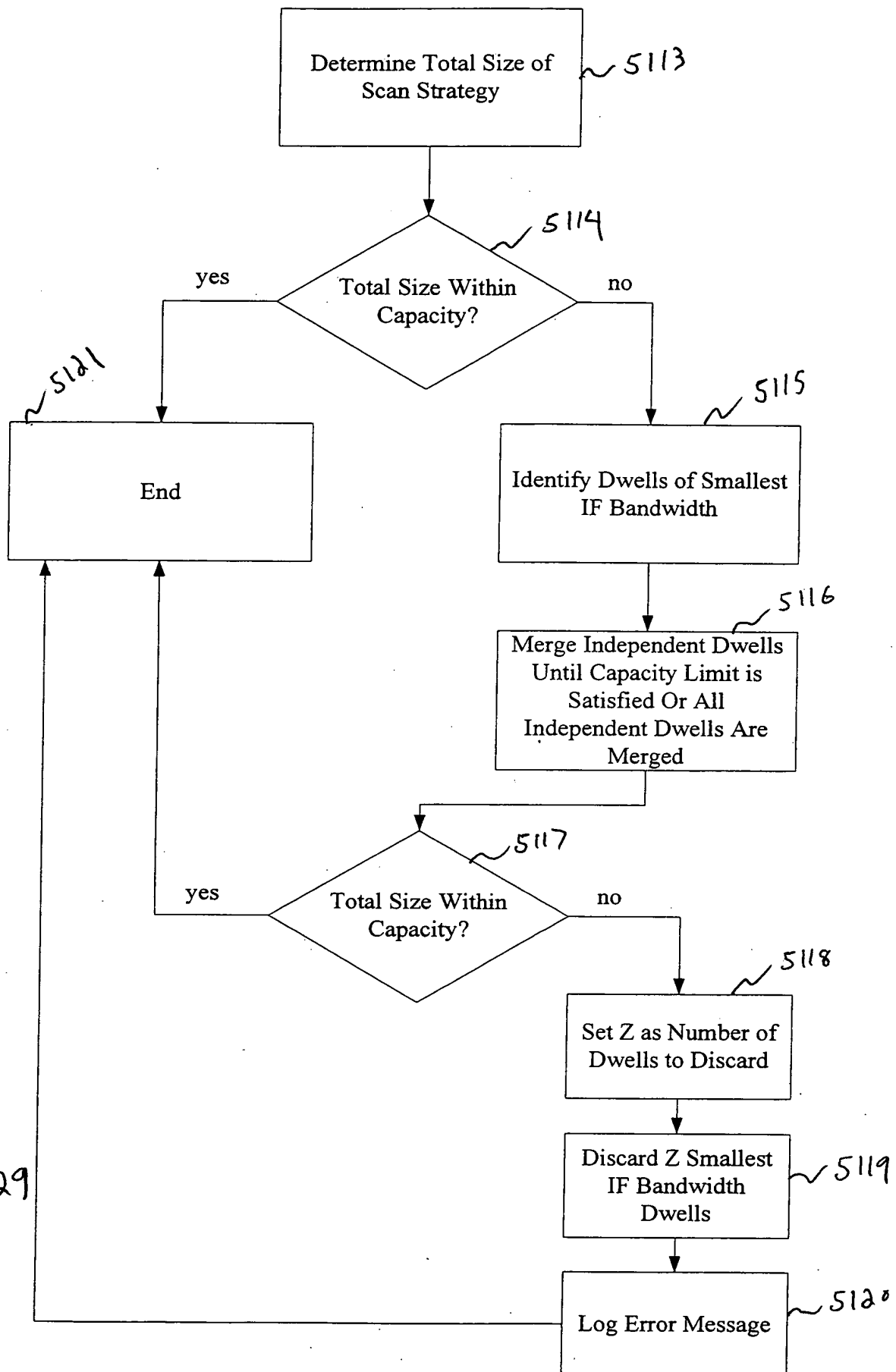


Figure 29

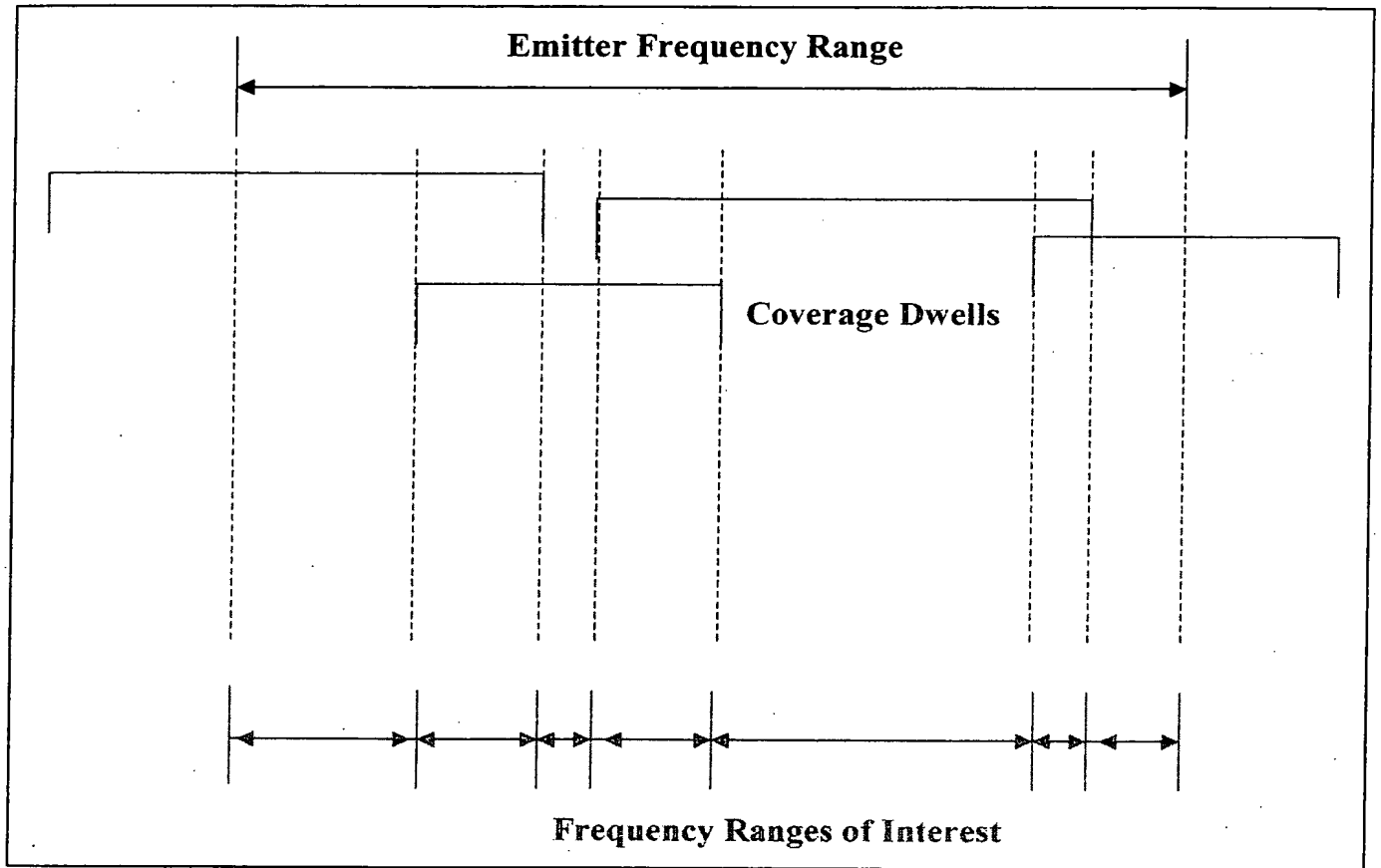


Figure 30

BEST AVAILABLE COPY

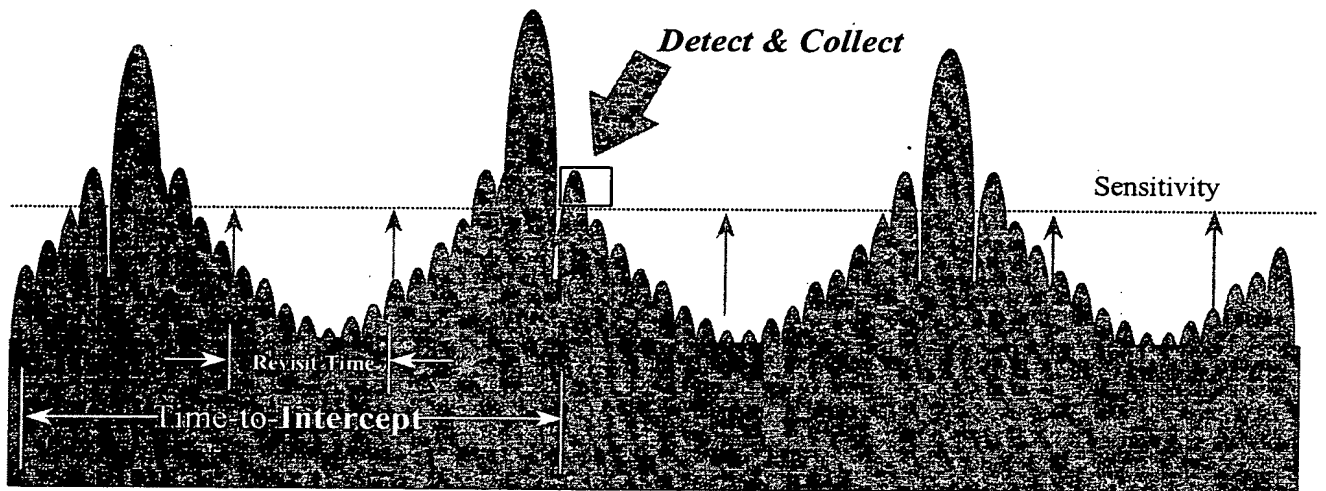


Figure 31

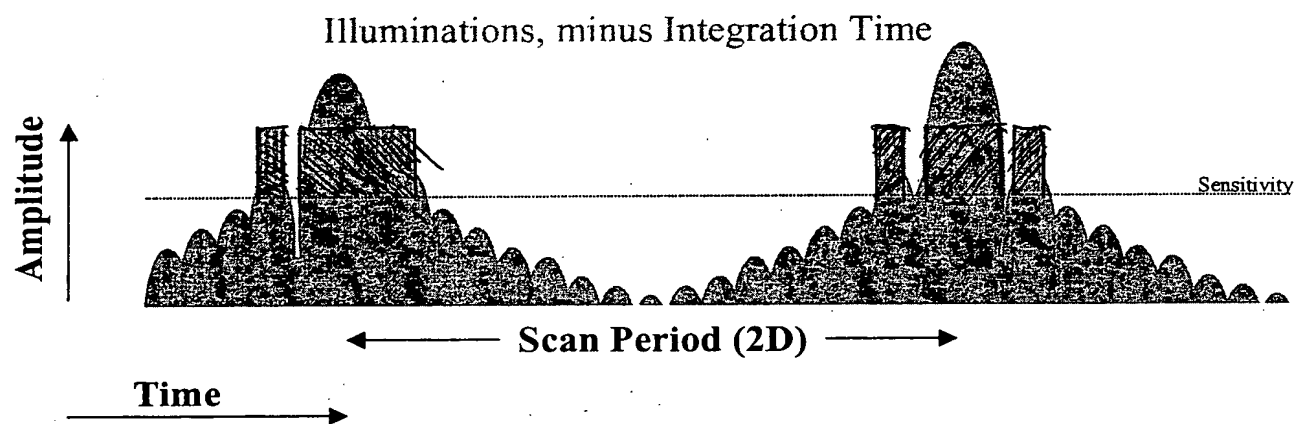


Figure 3a